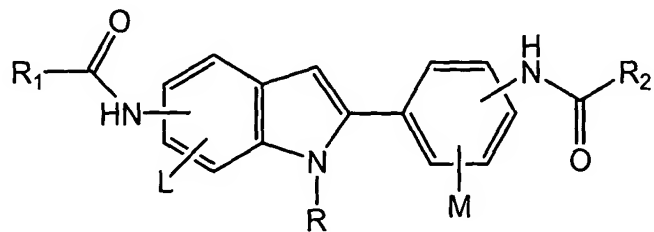
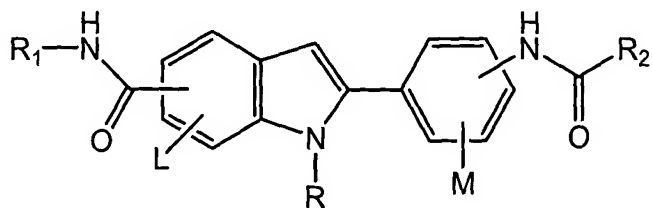


WHAT IS CLAIMED IS:

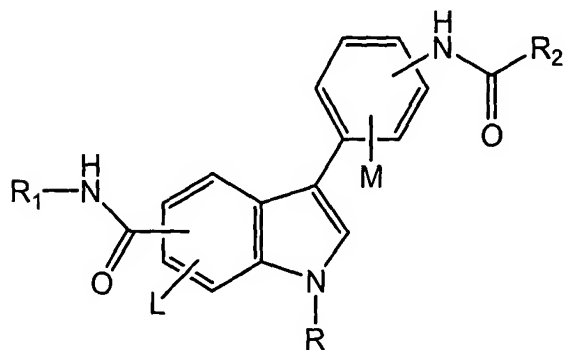
1. A pharmaceutical composition for treating or preventing an allergic reaction associated with increased IgE levels, inhibiting cellular proliferation, and/or inhibiting cytokines or leukocytes in a mammal comprising any one or more of the following compounds:



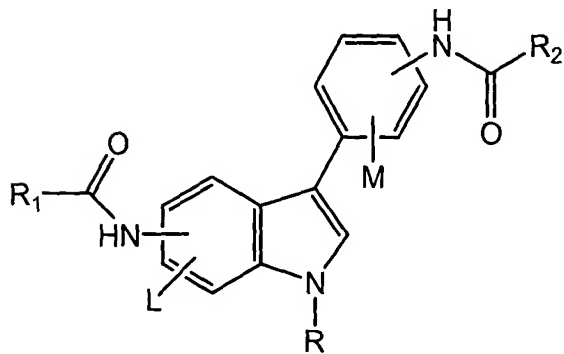
Genus I;



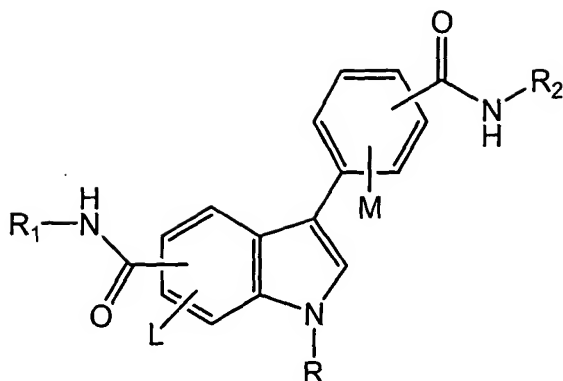
Genus II;



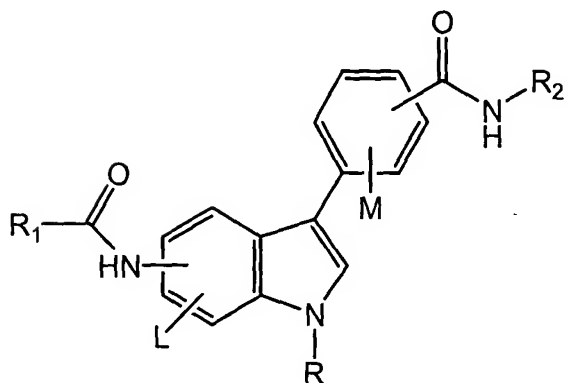
Genus III;



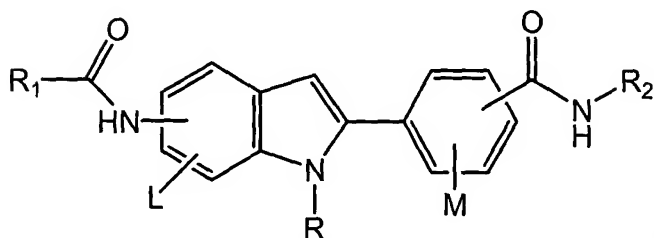
Genus IV;



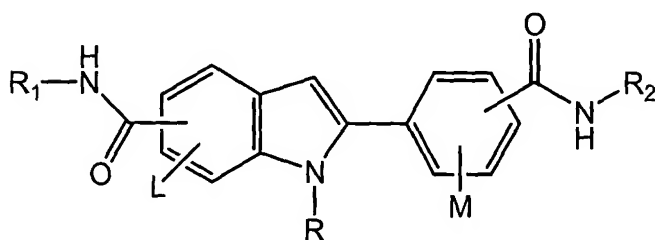
Genus V;



Genus VI;



Genus VII;



Genus VIII;

wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR', COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

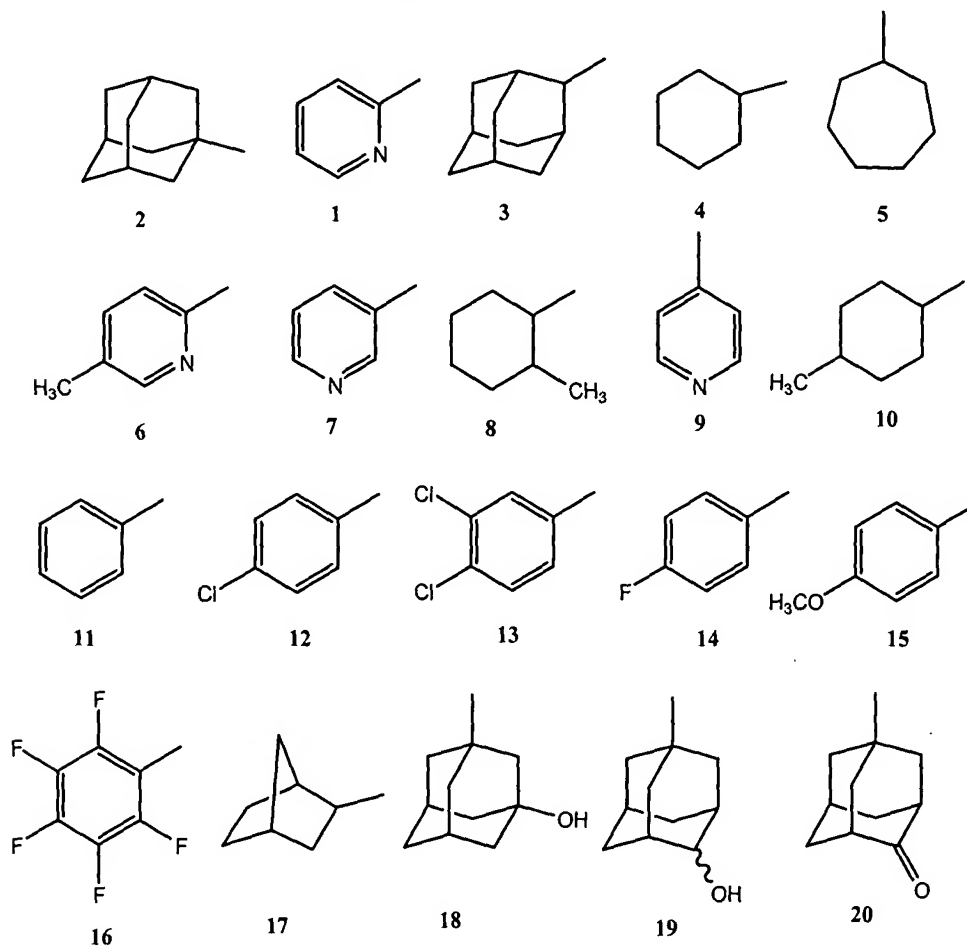
wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur.

2. The compound of Claim 1, wherein said polycyclic aliphatic group is selected from the group consisting of adamantyl, bicycloheptyl, camphoryl, bicyclo[2,2,2]octanyl and norbornyl.

3. The compound of Claim 1, wherein said heteroaryl and said substituted heteroaryl is selected from the group consisting of pyridines, thiazoles, isothiazoles, oxazoles, pyrimidines, pyrazines, furans, thiophenes, isoxazoles, pyrroles, pyridazines, 1,2,3-triazines, 1,2,4-triazines, 1,3,5-triazines, pyrazoles, imidazoles, indoles, quinolines, isoquinolines, benzothiophenes, benzofurans, parathiazines, pyrans, chromenes, pyrrolidines, pyrazolidines, imidazolidines, morpholines, thiomorpholines, and the corresponding heterocyclics.

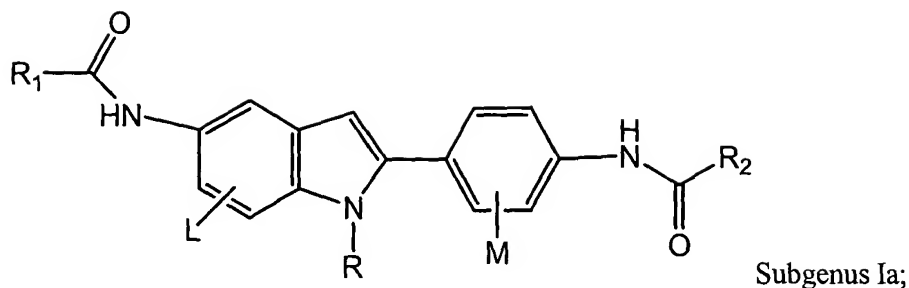
4. The pharmaceutical composition of Claim 1, further comprising at least one additional ingredient which is active in reducing at least one symptom associated with said allergic reaction, cell proliferation and/or inhibition of cytokines or leukocytes.

5. The pharmaceutical composition of Claim 1, wherein R_1 and R_2 are independently selected from the following:



6. The pharmaceutical composition of Claim 1 comprising a compound selected from the group consisting of compounds S1-S123, T1-T102, U1-U18, and V1-V28.

7. A pharmaceutical composition for treating or preventing an allergic reaction associated with increased IgE levels, inhibiting cellular proliferation, and/or inhibiting cytokines or leukocytes in a mammal comprising any one or more of the following compounds:



wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

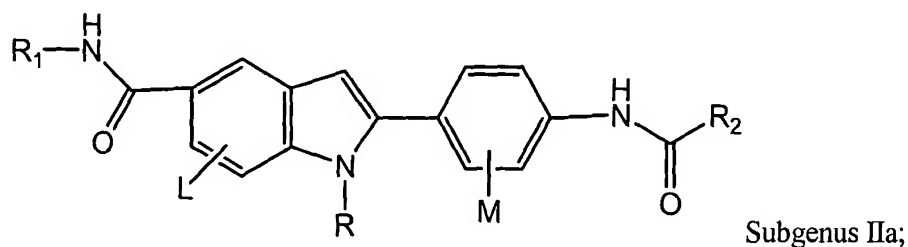
wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR' COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur.

8. The pharmaceutical composition of Claim 7 comprising a compound selected from the group consisting of compounds S-6, S-96, and S-97.

9. A pharmaceutical composition for treating or preventing an allergic reaction associated with increased IgE levels, inhibiting cellular proliferation, and/or inhibiting cytokines or leukocytes in a mammal comprising any one or more of the following compounds:



wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

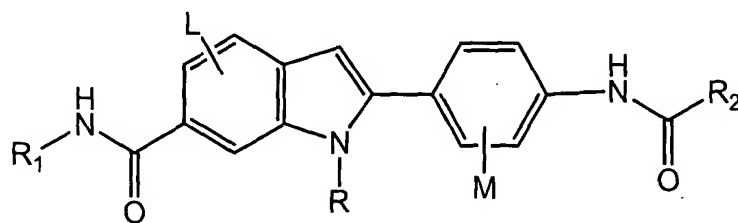
wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR', COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur.

10. The pharmaceutical composition of Claim 9 comprising a compound selected from the group consisting of compounds T-3, T-83, and T-102.

11. A pharmaceutical composition for treating or preventing an allergic reaction associated with increased IgE levels, inhibiting cellular proliferation, and/or inhibiting cytokines or leukocytes in a mammal comprising any one or more of the following compounds:



Subgenus IIb;

wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

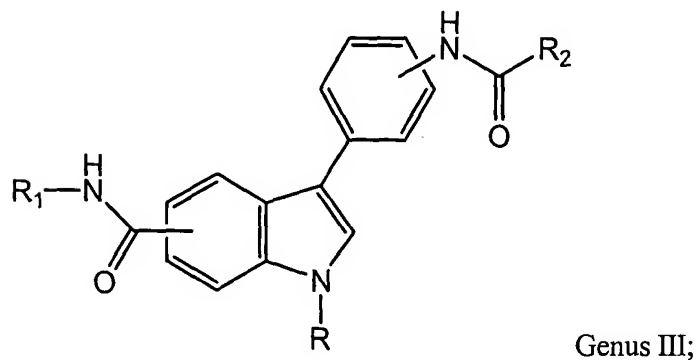
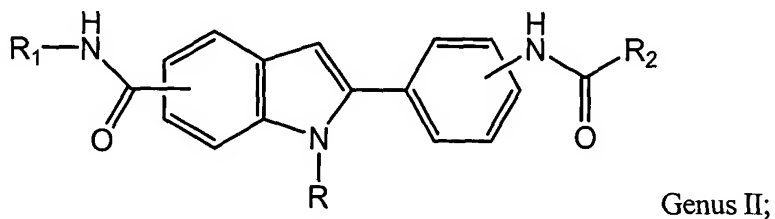
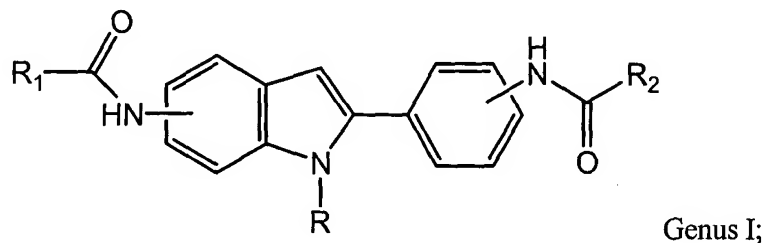
wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said

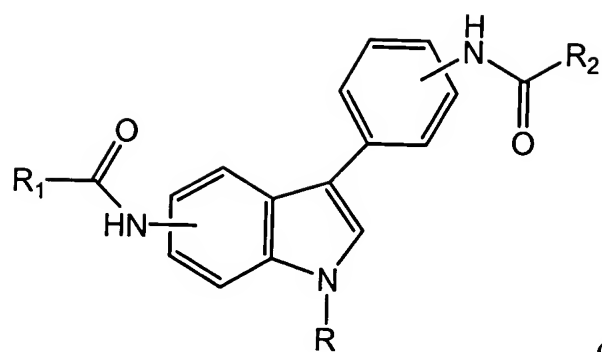
substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR' COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur.

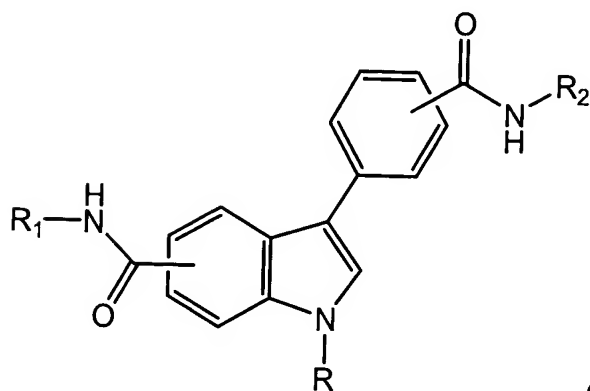
12. The pharmaceutical composition of Claim 11 comprising a compound selected from the group consisting of compounds T-88, T-89, T-90, T-91, T-94, and T-96.

13. A method for treating or preventing an allergic reaction and/or for inhibiting cytokines or leukocytes in a mammal comprising administering an effective amount of at least one of the following compounds:

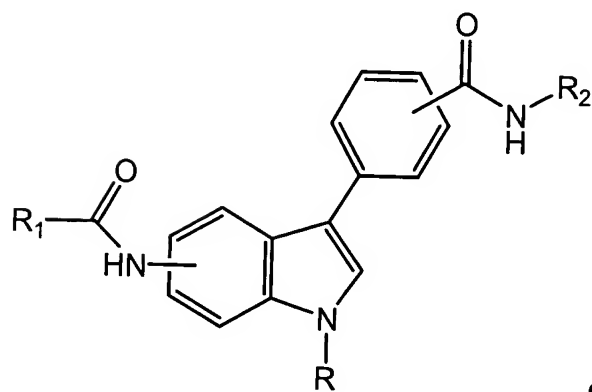




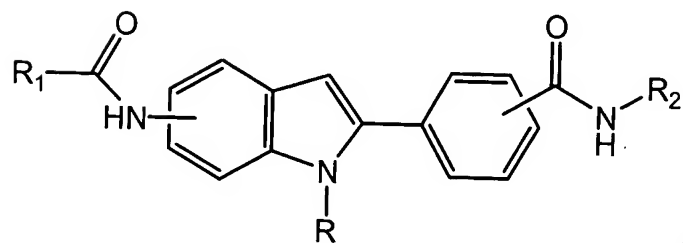
Genus IV;



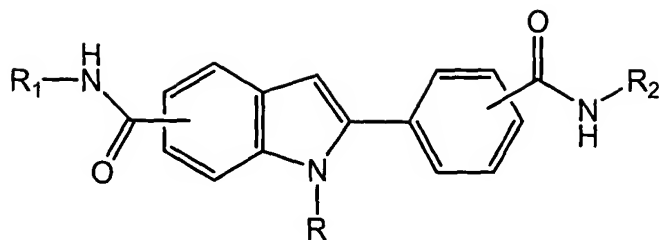
Genus V;



Genus VI;



Genus VII; and



Genus VIII;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR', COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur.

14. The method of Claim 13 further comprising administering at least one additional ingredient which is active in reducing at least one symptom associated with said allergic reaction.

15. The method of Claim 14, wherein said at least one additional ingredient is selected from the group consisting of a short-acting β_2 -adrenergic agonist, a long-acting β_2 -adrenergic agonist, an antihistamine, a phosphodiesterase inhibitor, an anticholinergic agent, a corticosteroid, an inflammatory mediator release inhibitor and a leukotriene receptor antagonist.

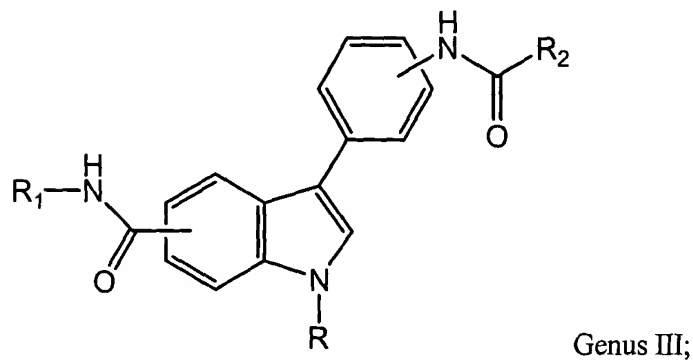
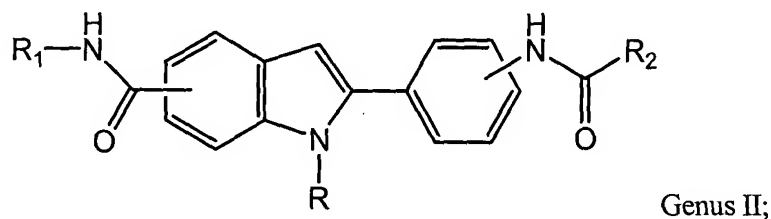
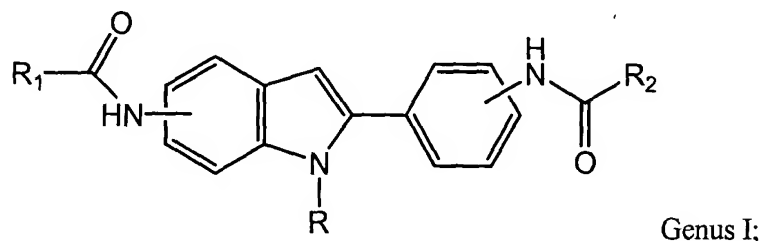
16. The method of Claim 14, wherein said at least one additional ingredient is combined with said compound in a pharmaceutically acceptable diluent and co-administered to the mammal.

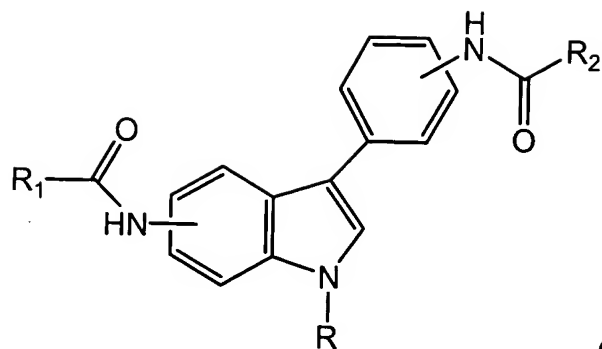
17. The method of Claim 13, wherein said compound is administered at a dose of about 0.01 mg to about 100 mg per kg body weight per day.

18. The method of Claim 17, wherein said dose is administered in divided doses at regular periodic intervals.

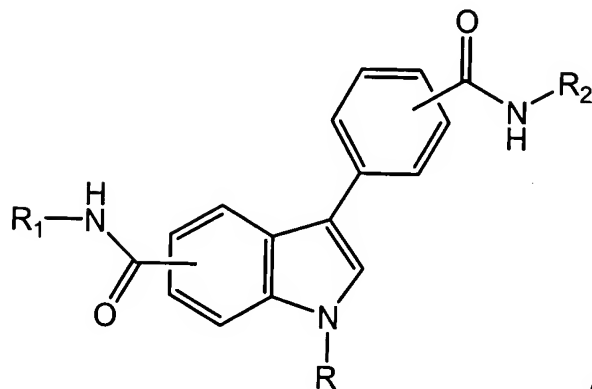
19. The method of Claim 18, wherein said regular periodic intervals occur daily.

20. A method for treating or preventing asthma in a mammal comprising administering an IgE-suppressing amount of at least one of the following compounds:

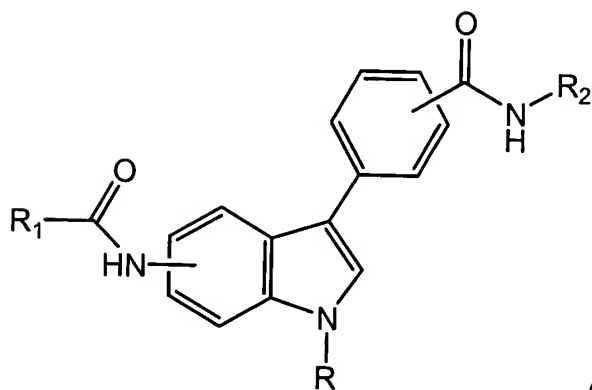




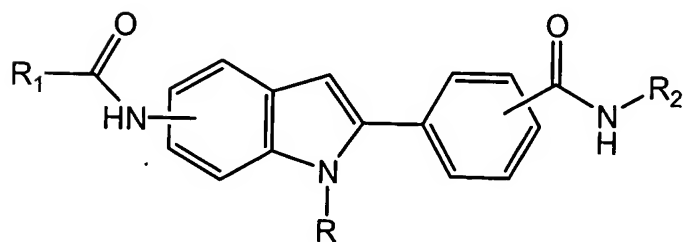
Genus IV;



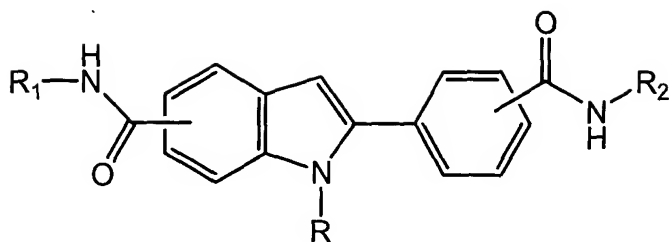
Genus V;



Genus VI;



Genus VII; and



Genus VIII;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

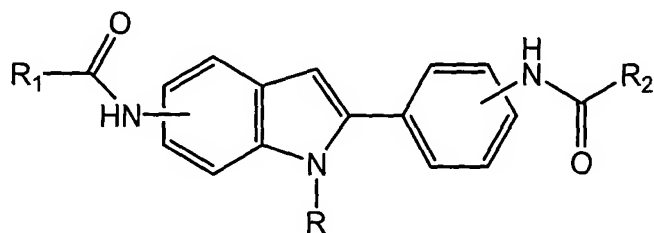
wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR', COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur.

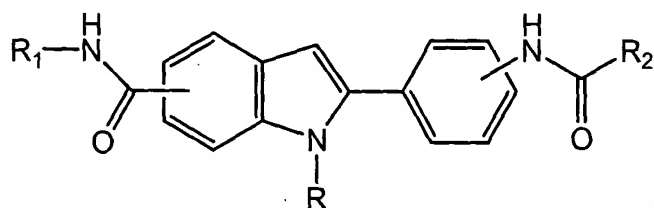
21. The method of Claim 20 further comprising administering at least one additional ingredient which is active in reducing at least one symptom associated with said asthma.

22. The method of Claim 21, wherein said additional ingredient is selected from the group consisting of a short-acting β_2 -adrenergic agonist, a long-acting β_2 -adrenergic agonist, an antihistamine, a phosphodiesterase inhibitor, an anticholinergic agent, a corticosteroid, an inflammatory mediator release inhibitor and a leukotriene receptor antagonist.

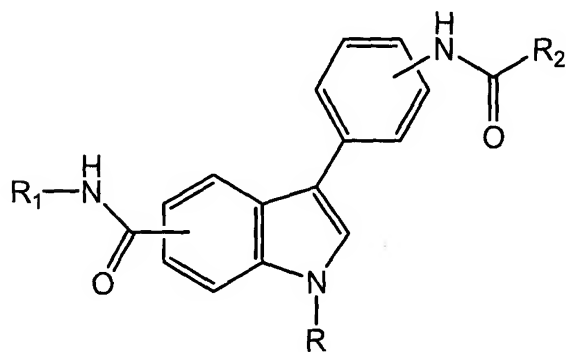
23. A method for inhibiting cellular proliferation in a mammal comprising administering an amount of at least one of the following compounds:



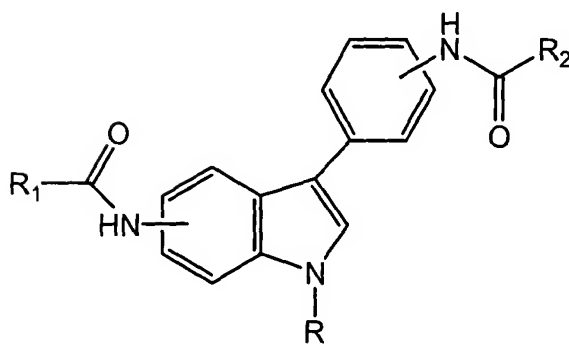
Genus I;



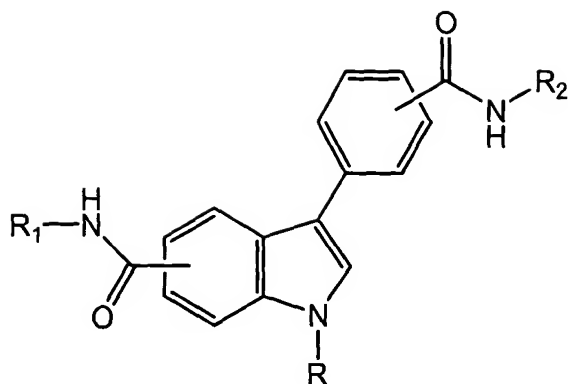
Genus II;



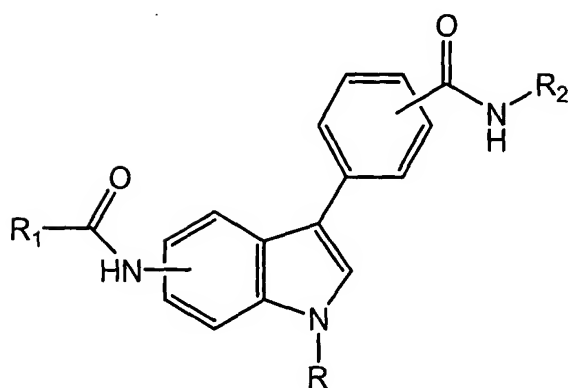
Genus III;



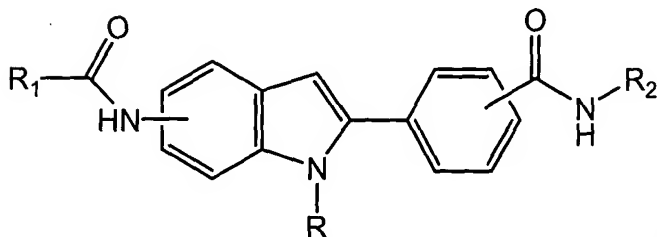
Genus IV;



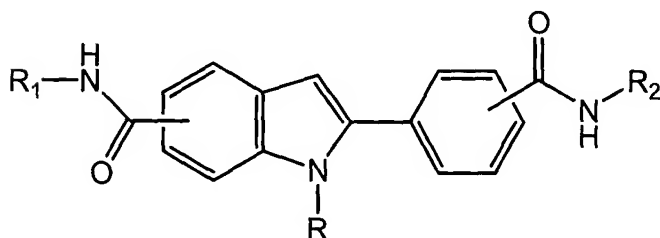
Genus V;



Genus VI;



Genus VII; and



Genus VIII;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic

aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR', COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur.

24. The method of Claim 23 further comprising administering at least one additional ingredient which is active in reducing at least one symptom associated with said cellular proliferation.

25. The method of Claim 24, wherein said at least one additional ingredient is selected from the group consisting of antifungals, antivirals, antibiotics, anti-inflammatories, and anticancer agents.

26. The method of Claim 24, wherein said at least one additional ingredient is selected from the group consisting of alkylating agent, antimetabolite, DNA cutter, topoisomerase I poison, topoisomerase II poison, DNA binder, and spindle poison.

27. The method of Claim 24, wherein said at least one additional ingredient is combined with said compound in a pharmaceutically acceptable diluent and co-administered to the mammal.

28. The method of Claim 23, wherein said compound is administered at a dose of about 0.01 mg to about 100 mg per kg body weight per day.

29. The method of Claim 28, wherein said dose is administered in divided doses at regular periodic intervals.

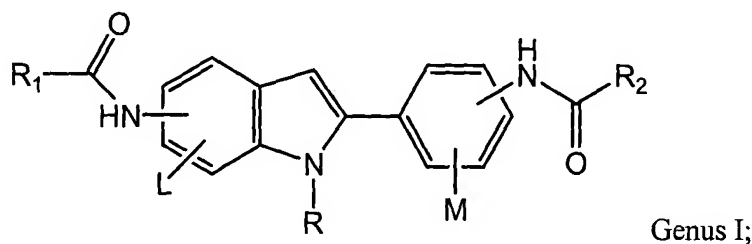
30. The method of Claim 29, wherein said regular periodic intervals occur daily.

31. The method of Claim 23 further comprising administering at least one other therapy which is effective in ameliorating at least one symptom associated with cellular hyperproliferation.

32. The method of Claim 31, wherein said therapy is an anti-cancer therapy.

33. The method of Claim 31, wherein said therapy is selected from the group consisting of radiation, immunotherapy, gene therapy, and surgery.

34. A method of preparing a compound or salt thereof having the formula:



wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

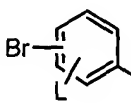
wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

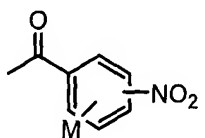
wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy

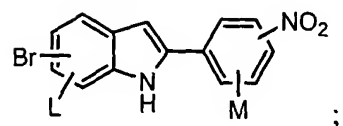
group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR' COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

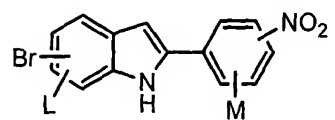
wherein said method comprises steps:

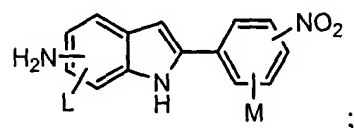
reacting a compound with a formula:  with a compound

with a formula: , thereby forming a compound with a formula:

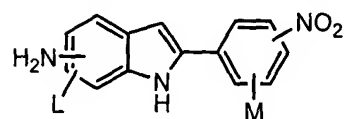


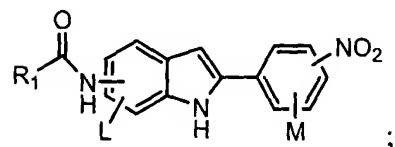
performing a reductive amination to the compound with a formula:

, thereby forming a compound with a formula:

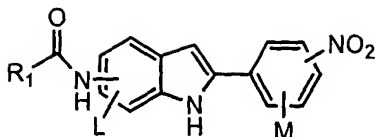


reacting an acyl chloride with the compound with a formula:

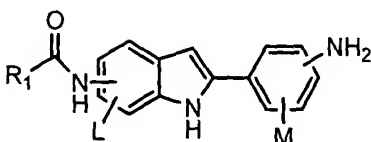
, thereby forming a compound with a formula:



reducing the compound with a formula:

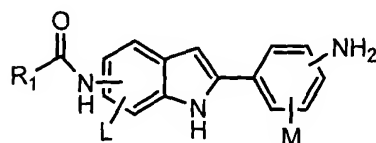


thereby forming a compound with a formula:



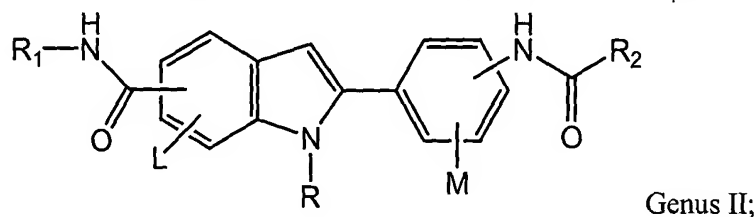
; and

reacting an acyl chloride with the compound with a formula:



, thereby forming a compound of Genus I.

35. A method of preparing a compound or salt thereof having the formula:



wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

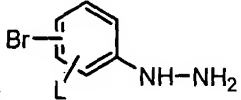
wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

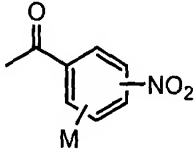
wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

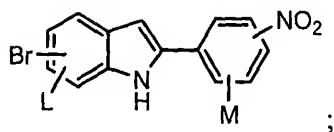
wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR' COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

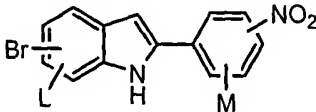
wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

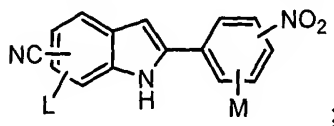
wherein said method comprises steps:

reacting a compound with a formula:  with a compound

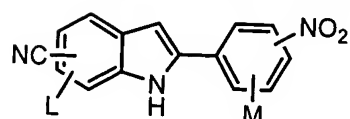
with a formula: , thereby forming a compound with a formula:



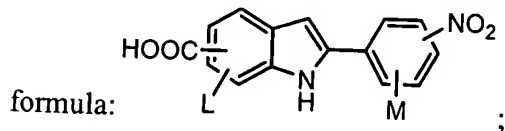
reacting the compound with a formula:  with cyanide ion, thereby forming a compound with a formula:



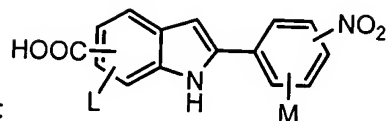
performing hydrolysis on the compound with a formula:



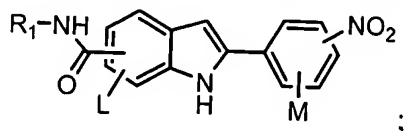
, thereby forming a compound with a



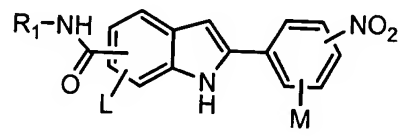
reacting the compound with a formula:



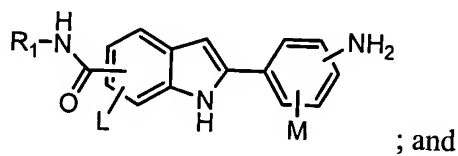
with an alkylamine, thereby forming a compound with a formula:



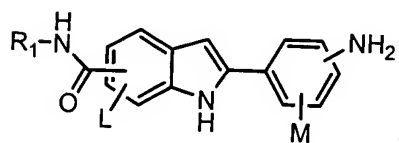
reducing the compound with a formula:



thereby forming a compound with a formula:

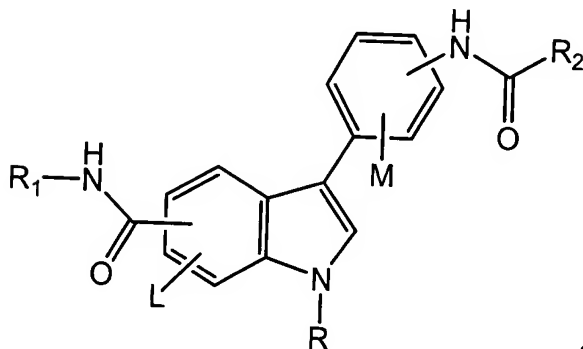


reacting an acyl chloride with the compound with a formula:



; thereby forming a compound of Genus II.

36. A method of preparing a compound or salt thereof having the formula:



Genus III;

wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

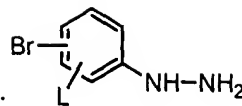
wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR', COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

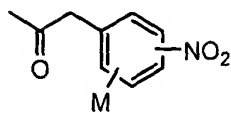
wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

wherein said method comprises steps:

reacting a compound with a formula:

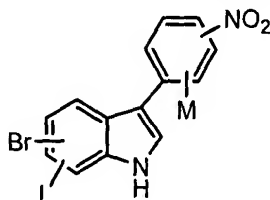


with a compound



with a formula:

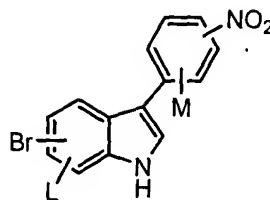
in the presence of a Lewis acid, thereby forming a



compound with a formula:

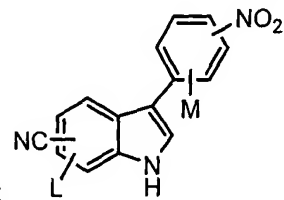
;

reacting the compound with a formula:



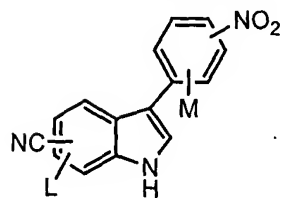
with a cyanide

ion, thereby forming a compound with a formula:

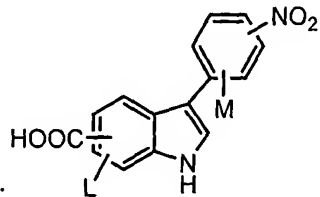


;

performing hydrolysis on the compound with a formula:

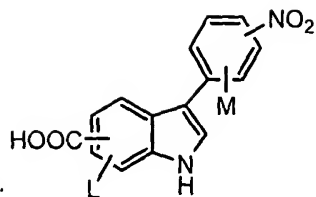


, thereby forming a compound with a

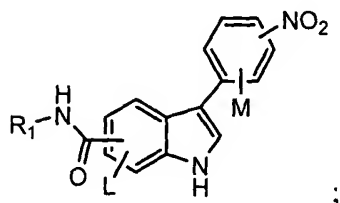


formula:

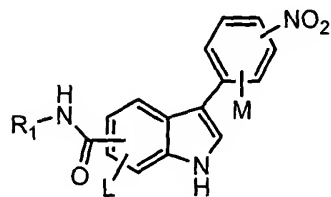
;



reacting the compound with a formula: with an
alkylamine, thereby forming a compound with a formula:

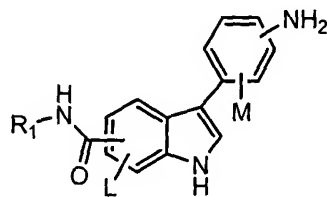


reducing the compound with a formula:



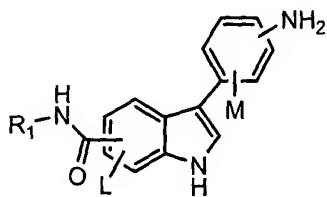
; thereby

forming a compound with a formula:



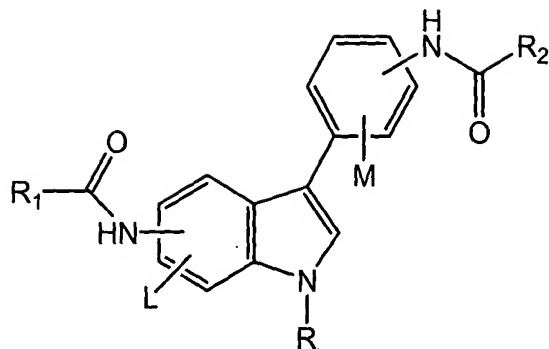
; and

reacting an acyl chloride with the compound with a formula:



; thereby forming a compound of Genus III.

37. A method of preparing a compound or salt thereof having the formula:



Genus IV;

wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

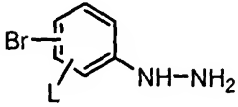
wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

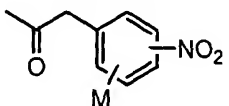
wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR' COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

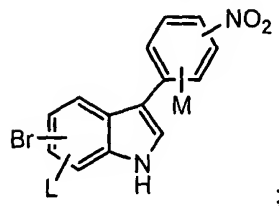
wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3

heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

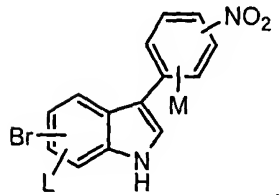
wherein said method comprises steps:

reacting a compound with a formula:  with a compound

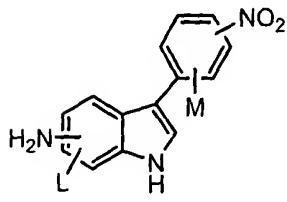
with a formula: , thereby forming a compound with a formula:



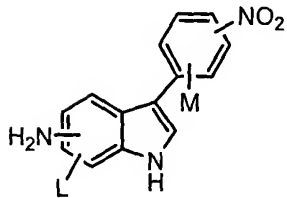
performing a reductive amination to the compound with a formula:



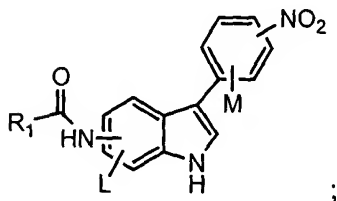
, thereby forming a compound with a formula:

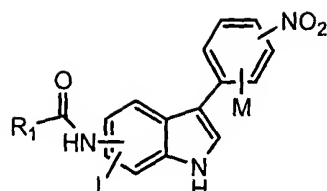


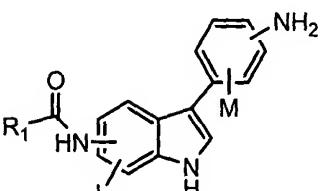
reacting an acyl chloride with the compound with a formula:

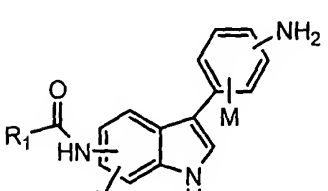


, thereby forming a compound with a formula:

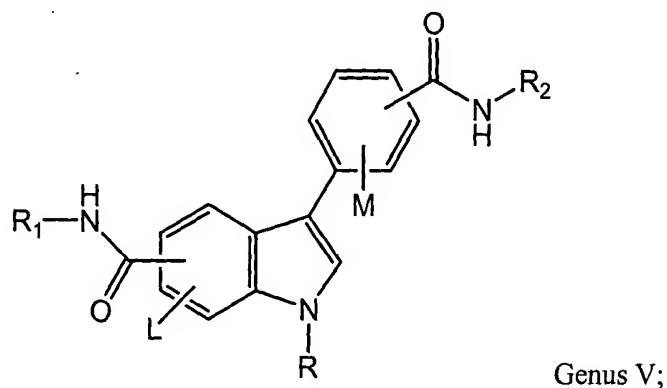


reducing the compound with a formula:  , thereby

forming a compound with a formula:  ; and

reacting an acyl chloride with the compound with a formula:  , thereby forming a compound of Genus IV.

38. A method of preparing a compound or salt thereof having the formula:



wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

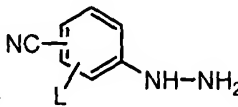
wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic

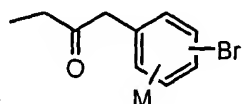
aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

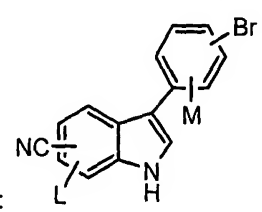
wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR', COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

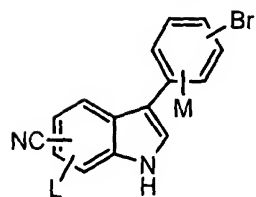
wherein said method comprises steps:

reacting a compound with a formula:  with a compound

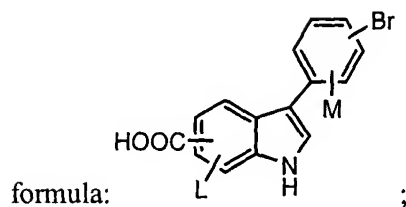
with a formula:  in the presence of a Lewis acid, thereby forming

a compound with a formula:  ;

performing hydrolysis on the compound with a formula:



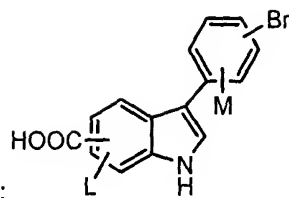
, thereby forming a compound with a



formula:

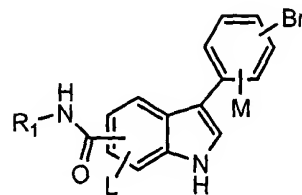
;

reacting the compound with a formula:



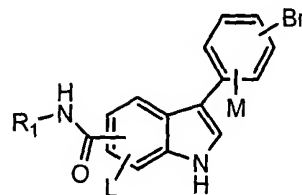
with an

alkylamine, thereby forming a compound with a formula:



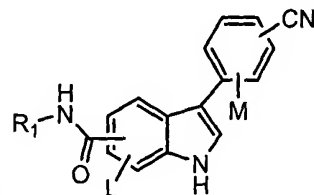
;

reacting the compound with a formula:



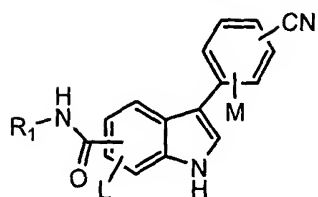
with a

cyanide ion, thereby forming a compound with a formula:

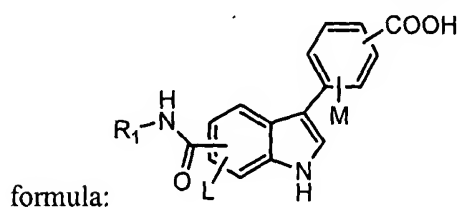


;

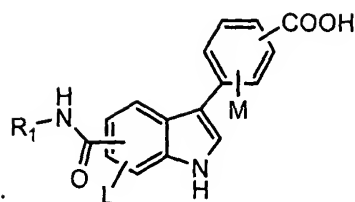
performing hydrolysis on the compound with a formula:



, thereby forming a compound with a

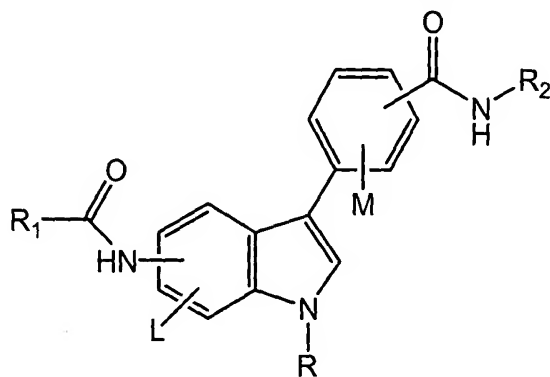


formula: ;



reacting the compound with a formula: with an
alkylamine, thereby forming a compound of Genus V.

39. A method of preparing a compound or salt thereof having the formula:



Genus VI;

wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

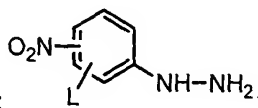
wherein R_1 and R_2 are independently selected from the group consisting of H, alkyl, substituted alkyl, C_3 - C_9 cycloalkyl, substituted C_3 - C_9 cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH_3 , $COOH$, $COOR'$, COR' , CN, CF_3 , OCF_3 , NO_2 , $NR'R'$, $NHCOR'$, and $CONR'R'$; and

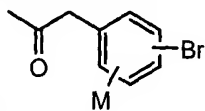
wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C_3 - C_9 cycloalkyl, substituted C_3 - C_9 cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

wherein said method comprises steps:

reacting a compound with a formula:

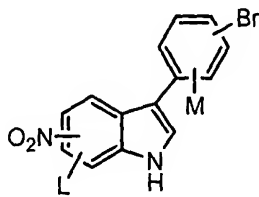


with a compound



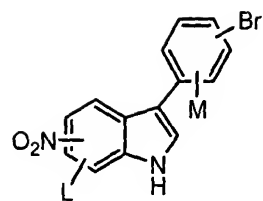
with a formula:

in the presence of a Lewis acid, thereby forming a



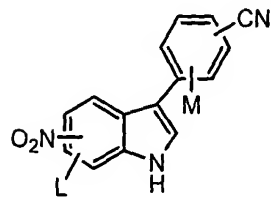
compound with a formula:

;



reacting the compound with a formula:

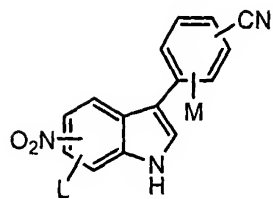
with a cyanide



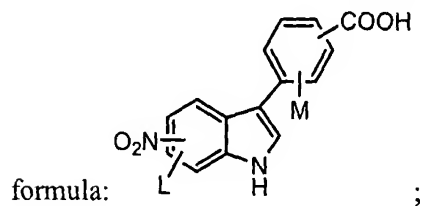
ion, thereby forming a compound with a formula:

;

performing hydrolysis on the compound with a formula:

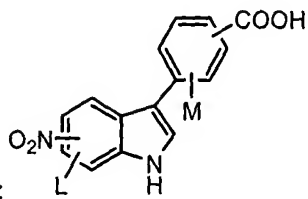


, thereby forming a compound with a



formula:

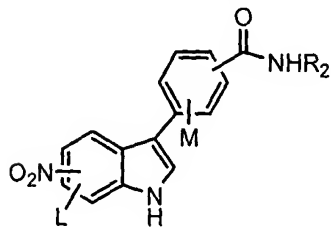
;



reacting the compound with a formula:

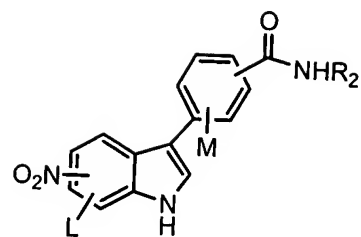
with an

alkylamine, thereby forming a compound with a formula:



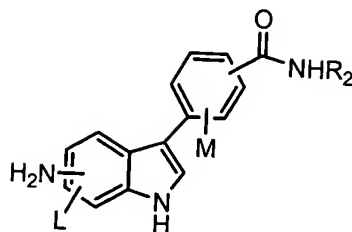
;

reducing the compound with a formula:



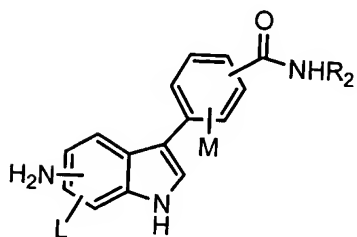
; thereby

forming a compound with a formula:



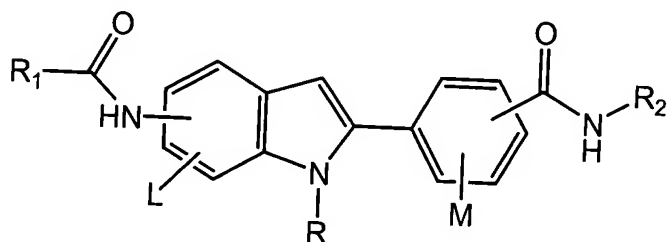
; and

reacting an acyl chloride with the compound with a formula:



; thereby forming a compound of Genus VI.

40. A method of preparing a compound or salt thereof having the formula:



Genus VII;

wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

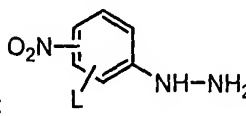
wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic

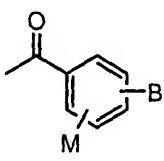
aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

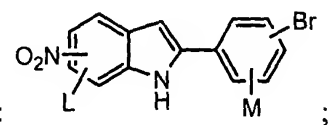
wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR', COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

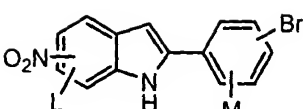
wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

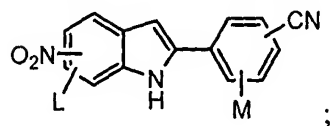
wherein said method comprises steps:

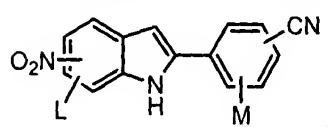
reacting a compound with a formula:  with a compound

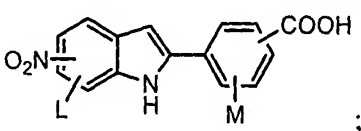
with a formula:  in the presence of a Lewis acid, thereby forming a

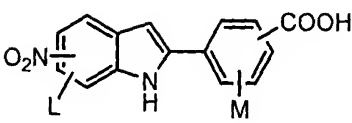
compound with a formula:  ;

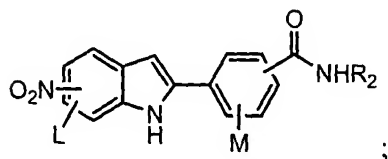
reacting the compound with a formula:  with a cyanide ion, thereby forming a compound with a formula:



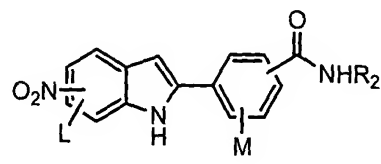
performing hydrolysis on the compound with a formula: , thereby forming a compound with a

formula:  ;

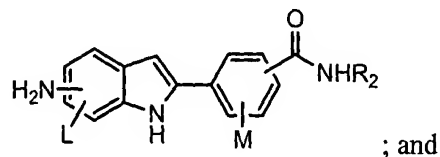
reacting the compound with a formula:  with an alkylamine, thereby forming a compound with a formula:



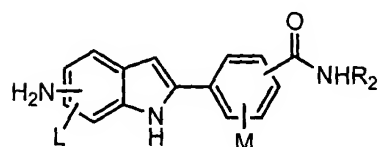
reducing the compound with a formula:



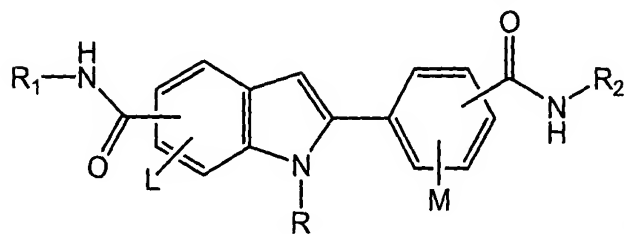
thereby forming a compound with a formula:



reacting an acyl chloride with the compound with a formula:



41. A method of preparing a compound or salt thereof having the formula:



Genus VIII;

wherein L and M are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF₃, OCF₃, CONH₂, CONHR and NHCOR₁;

wherein R is selected from the group consisting of H, C₁-C₅ alkyl, benzyl, p-fluorobenzyl and di-alkylamino alkyl, wherein said C₁-C₅ alkyl is selected from the group consisting of a straight chain, branched or cyclic alkyl;

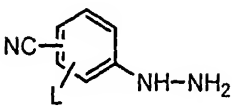
wherein R₁ and R₂ are independently selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatic groups, substituted polycyclic aliphatic groups, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heterocyclic, polycyclic heterocyclic, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3 heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

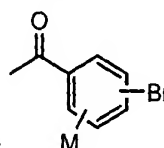
wherein said substituted polycyclic aliphatic groups, substituted phenyl, substituted naphthyl and substituted heteroaryl contain 1-3 substituents, wherein said substituent is selected from the group consisting of H, halogens, polyhalogens, alkoxy group, substituted alkoxy, alkyl, substituted alkyl, dialkylaminoalkyl, hydroxyalkyl, hydroxyamino, alkoxyamino, carbonyl, OH, OCH₃, COOH, COOR', COR', CN, CF₃, OCF₃, NO₂, NR'R', NHCOR', and CONR'R'; and

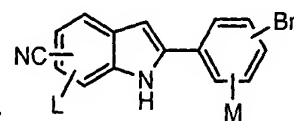
wherein R' is selected from the group consisting of H, alkyl, substituted alkyl, C₃-C₉ cycloalkyl, substituted C₃-C₉ cycloalkyl, polycyclic aliphatics, phenyl, substituted phenyl, naphthyl, substituted naphthyl, heteroaryl and substituted heteroaryl, wherein said heteroaryl and said substituted heteroaryl contain 1-3

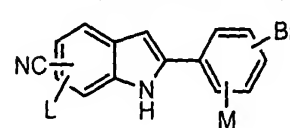
heteroatoms, wherein said heteroatom is independently selected from the group consisting of nitrogen, oxygen and sulfur;

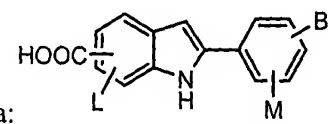
wherein said method comprises steps:

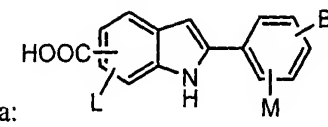
reacting a compound with a formula:  with a compound

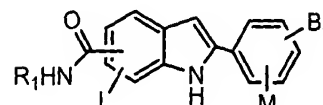
with a formula:  in the presence of a Lewis acid, thereby forming a

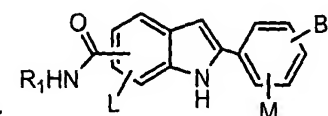
compound with a formula:  ;

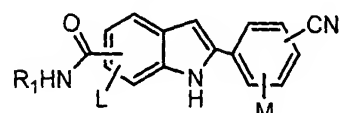
performing hydrolysis on the compound with a formula: , thereby forming a compound with a

formula:  ;

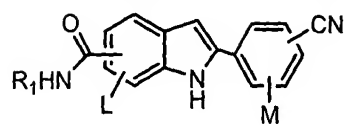
reacting the compound with a formula:  with an alkylamine, thereby forming a compound with a formula:

 ;

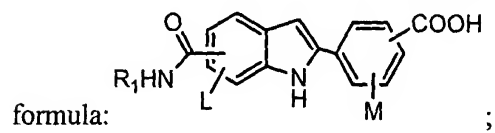
reacting the compound with a formula:  with a cyanide ion, thereby forming a compound with a formula:

 ;

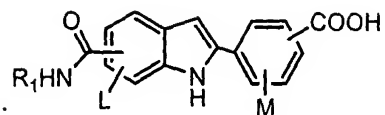
performing hydrolysis on the compound with a formula:



, thereby forming a compound with a



;



reacting the compound with a formula:

with

an alkylamine, thereby forming a compound of Genus VIII.